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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,769	09/21/2001	Steven Soria JR.	STL920000113US1	6311
64612	7590	11/10/2010	EXAMINER	
OHLANDT, GREELEY, RUGGIERO & PERLE, L.L.P. IBM SAN JOSE 1 LANDMARK SQUARE 10TH FLOOR STEMFORD, CT 06901			PAULA, CESAR B	
			ART UNIT	PAPER NUMBER
			2178	
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			11/10/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/960,769	SORIA ET AL.	
	Examiner	Art Unit	
	CESAR B. PAULA	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 May 2010.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) See Continuation Sheet is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1 - 3, 5, 6, 8, 10, 11, 13 - 19, 21, 22, 24 - 33, 35, 36 and 38 -44, 46, and 48 is/are rejected.
 7) Claim(s) 45,47 and 49 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____.	6) <input type="checkbox"/> Other: _____ .

Continuation of Disposition of Claims: Claims pending in the application are 1 - 3, 5, 6, 8, 10, 11, 13 - 19, 21, 22, 24 - 33, 35, 36 and 38 - 49 .

DETAILED ACTION

1. This action is responsive to the RCE amendment filed 5/7/2010.

This action is made Non-Final.

2. In the amendment, claims 4, 7, 12, 20, 23, 34 and 37 are cancelled. Claims 44-49 have been added. Claims 1 - 3, 5, 6, 8, 10, 11, 13 - 19, 21, 22, 24 - 33, 35, 36 and 38 - 49 are pending in the case. Claims 1, 17 and 31 are independent claims.
3. The rejections of claims 1, 2, 3-6, 8, 10, 12-15, 17, 18-22, 24, 25, 27-29, 31-36, 38, 39, 41 and 42 rejected under 35 U.S.C. 102(b) as being anticipated by Sinander (WO 99/08206; International Publication Date February 18, 1999; from Information Disclosure Statement filed December 18, 2001), have been withdrawn as necessitated by the amendment.
4. The rejections of claims 7, 23 and 37 rejected under 35 U.S.C. 103(a) as being unpatentable over Sinander in view of Akkary et al. (U.S. Patent 6591342; date of patent July 8, 2003; filed December 14, 1999), have been withdrawn as necessitated by the amendment.
5. The rejections of claims 7, 23 and 37 rejected under 35 U.S.C. 103(a) as being unpatentable over Sinander in view of Akkary et al. (U.S. Patent 6591342; date of patent July 8, 2003; filed December 14, 1999), have been withdrawn as necessitated by the amendment.
6. The rejections of claims 11, 26 and 40 rejected under 35 U.S.C. 103(a) as being unpatentable over Sinander in view of Duvillier et al. (U.S. Pub. No. 20020103815; publication date

August 1, 2002; filed December 12, 2000), have been withdrawn as necessitated by the amendment.

7. The rejections of claims 16, 30 and 43 rejected under 35 U.S.C. 103(a) as being unpatentable over Sinander in view of Schwartz et al. (U.S. Pub. No. 20020073089; publication date June 13, 2002; filed October 1, 2001), have been withdrawn as necessitated by the amendment.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 2, 3, 5-6, 8, 10, 13-15, 17, 18-19, 21-22, 24, 25, 27-29, 31-33, 35-36, 38, 39, 41-42, 44, 46, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinander (WO 99/08206; International Publication Date February 18, 1999; from Information Disclosure Statement filed December 18, 2001), in view of Comparison of access methods for time-evolving data, Betty Salzberg et al, Computing Surveys (CSUR) , Volume 31 Issue, 6/1999.

Regarding independent claim 1, Sinander discloses a method for supporting versioning of data in a content management system, said method comprising:

- *maintaining a first table for storing an identifier of a most recent version of a data item*
(Table 1; p.2, lines 36-37; p.3, lines 16-25; p.4, lines 2-4; p.5, lines 9-14; p.7, lines 25-35; Figures 2b, 3, 4 – as demonstrated in the figures and cited text, names/versions of the new target version (identifier of most recent version) is stored in the database); and
- *maintaining a second table for storing an identifier of an older version of said data item*
(Table 1; p.2, lines 33-35; p.3, lines 16-25; p.5, lines 9-14; p.7, lines 25-35; p.8, lines 4-9; Figures 2b, 3, 4 – as demonstrated in the figures and cited text, the name or version of the base version (identifier of older version) is stored in the database), *wherein, when said data item is to be updated, (i) said second table is updated to include said identifier of said most recent version of said data from said first table, and (ii) said first table is updated to identify a new version of said data item* (p.2, lines 33-37; p.3, lines 16-25; p.5, lines 9-14; p.8, lines 15-25 – as demonstrated in the cited text, when a version is updated, the new version prior to the update is moved to the database storing the older versions so that the updated version becomes the newest version). Sinander does not disclose *so that said second table stores both of said identifier of said older version of said data item and said identifier of said most recent version of said data item, and (ii) said first table is updated to identify to store an identifier of a new version of said data item.* However, Salzberg teaches whenever a new version of data item is updated, the system separates current and past data in a database using manual automatic methods, by removing old or dead records from current store to optical disks (4.5, 5.1). It would have been obvious to one of ordinary skill in the art, to combine the teachings of Sinander and Salzberg, because of all the

reasons found in Salzberg, including decreasing search structure, which would speed up data queries (5.1.1).

Regarding dependent claim 2, Sinander discloses the method of claim 1, further comprising associating different version numbers with different versions of said data item (p.7, Table 1, lines 25-35 – as demonstrated in the table and cited text, different version numbers are associated with the base version, target version, upgrade version).

Regarding dependent claim 3, Sinander discloses the method of claim 2, wherein each of said different versions is associated with a (version number - 1) value (p.7, Table 1, lines 25-35 – as demonstrated in the table and cited text, the different versions all have different values appended to the version name (1.0 for the base version, 1.1 for the target version)).

Regarding dependent claim 5, Sinander discloses the method of claim 3, further comprising generating said (version number -1) value for successive versions of said data item by incrementing said (version number - 1) value from zero (0) to n (p.7, Table 1, lines 25-35 – as demonstrated in the table and cited text, the base version (old version) has a value of 1.0 and the target versions (newest versions) have an incremented value of 1.1).

Regarding dependent claim 6, Sinander discloses the method of claim 1, further comprising generating a value for successive versions of said data item by incrementing said version number from zero (0) to m (p.7, Table 1, lines 25-35 – as demonstrated in the table and cited text, the base version (old version) has a version number of 1.0 and the target versions (newest versions) have an incremented version number of 1.1).

Regarding dependent claim 8, Sinander discloses the method of claim 1, wherein a version number having a value of zero (0) is associated with said most recent version of said stored data item or an oldest version of said data item, depending on a context of use for said version number (p.7, Table 1, lines 23-35; p.8, lines 4-9 – as demonstrated in the table and cited text, a value of zero is associated with the oldest version of data).

Regarding dependent claim 10, Sinander discloses the method of claim 1, wherein an operation including a version number having a value of zero (0) is interpreted as a request for said most recent version of said stored data item, and said operation is selected from a group consisting of a query operation, a retrieve operation, and an update operation (p.2, lines 33-37; p.7, lines 25-28; p.8, lines 4-9 – as demonstrated in the cited text, an update operation is performed and the most recent version is requested).

Regarding dependent claim 13, Sinander discloses the method of claim 1, wherein a first instance of a version of said data item is stored in said first table (p.4, lines 2-4; p.7, lines 23-35;

figures 2b, 3, 4 – as demonstrated in the figures and cited text, a version of the data is stored in a first table).

Regarding dependent claim 14, Sinander discloses the method of claim 1, further comprising performing a query on said first table and said second table wherein a column attribute of a column selected by said query is retained in a result of said query (p.7, Table 1; p.8, lines 4-9 – as demonstrated in the table and cited text, a column attribute is retained as a result of a query).

Regarding dependent claim 15, Sinander discloses the method of claim 14, wherein said query invokes a union operation (p.3, lines 1-7, 16-25 – as demonstrated in the cited text, a union operation is invoked).

Regarding independent claim 17, Sinander discloses a system for supporting versioning of data in a content management system, said system comprising:

- a memory (Figure 1; p.4, lines 26-27 – as demonstrated in the figure and cited text, a memory is disclosed);
- a module that maintains (a) a first table for storing an identifier of a most recent version of a data item in said memory, and (b) a second table for storing an identifier of an older version of said data item in said memory (Table 1; p.2, lines 33-37; p.3, lines 16-25; p.4, lines 2-4; p.5, lines 9-14; p.7, lines 25-35; p.8, lines 4-9; Figures 2b, 3, 4 – as demonstrated in the figures and cited text, names/versions of the new target version

(identifier of most recent version) is stored in the database and the name or version of the base version (identifier of older version) is stored in the database),

- wherein, when said data item is to be updated, (i) said second table is updated to include said identifier of said most recent version of said data from said first table, and (ii) said first table is updated to identify a new version of said data item (p.2, lines 33-37; p.3, lines 16-25; p.5, lines 9-14; p.8, lines 15-25 – as demonstrated in the cited text, when a version is updated, the new version prior to the update is moved to the database storing the older versions so that the updated version becomes the newest version).

Regarding dependent claims 18, 24, 25 and 27-29, the claims reflect the system with means for performing the operations of claims 2, 8, 10 and 13-15 respectively and are rejected along the same rationale.

Regarding dependent claims 19, 21-22 and 33, 35-36, the claims reflect the system and storage medium for performing the method of claims 3, 5-6 and are rejected along the same rationale.

Regarding claims 31, 32, 38, 39, 41 and 42, the claims reflect the storage medium having computer readable instructions for performing the operations of claims 1, 2, 8, 10, 14 and 15 respectively and are rejected along the same rationale.

Regarding dependent claims 44, 46, and 48, Sinander does not disclose *wherein said second table stores identifiers of more than two older versions of said data item..* However, Salzberg

teaches whenever a new version of data item is updated, the system separates current and past data in a database using manual automatic methods, by removing old or dead records from current store to optical disks (4.5, 5.1). It would have been obvious to one of ordinary skill in the art, to combine the teachings of Sinander and Salzberg, because of all the reasons found in Salzberg, including decreasing search structure, which would speed up data queries (5.1.1).

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sinander, in view of Salzberg, and further in view of Akkary et al. (U.S. Patent 6591342; date of patent July 8, 2003; filed December 14, 1999).

Regarding dependent claim 7, Sinander does not disclose m has a predetermined maximum value. Akkary teaches a predetermined maximum value for version numbers (col. 12, lines 55-65). It would have been obvious to one of ordinary skill in the art, having the teachings of Sinander and Akkary before him at the time the invention was made, to modify the version numbers taught by Sinander to include a predetermined maximum value as taught by Akkary, because incrementing to a predetermined maximum value would allow the system to accurately check for buffer overflows if the version number was used as an indicator (col. 12, lines 55-65).

11. Claims 11, 26 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinander, in view of Salzberg, and further in view of Duvillier et al. (U.S. Pub. No. 20020103815; publication date August 1, 2002; filed December 12, 2000).

Regarding dependent claim 11, 26 and 40, Sinander discloses an operation including a version number having a value of zero (0) is interpreted as a request for an oldest version of said stored data item (p.7, lines 25-35).

Sinander does not disclose a delete operation. Duvillier teaches a delete operation (p.6, para. 79). It would have been obvious to one of ordinary skill in the art, having the teachings of Sinander and Duvillier before him at the time the invention was made, to modify the method taught by Sinander to include a delete operation as taught by Duvillier, because deleting older versions of data, as taught by Duvillier (p.6, para. 79), would free memory in the system.

12. Claims 16, 30 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinander, in view of Salzberg, and further in view of Schwartz et al. (U.S. Pub. No. 20020073089; publication date June 13, 2002; filed October 1, 2001).

Regarding dependent claim 16, 30 and 43, Sinander does not disclose column attribute is obtained from a sequential query language description area of said query result. Schwartz teaches SQL obtains column attributes (p.6, para. 71). It would have been obvious to one of ordinary skill in the art, having the teachings of Sinander and Schwartz before him at the time the invention was made, to modify the method taught by Sinander to include SQL obtaining column attributes as taught by Schwartz, because SQL was well-known at the time of the invention for querying and using a well-known language would have allowed more users to utilize the invention since there was a familiarity with SQL.

Allowable Subject Matter

13. Claims 45, 47, and 49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

14. Applicant's arguments filed 5/7/2010 have been fully considered but they are moot. Regarding amended independent claims 1, 17, and 31, Applicants indicate that Sinander does not disclose the newly added claim limitations (pages 9-12). The Applicant is directed towards the new rejection of these claims above as necessitated by the newly introduced amendment.

Claims 2-3, 5-6, 10, 11, 13-16, 18-19, 21-22, 24-30 and 32-33, 35-36, and 38-43 depend from independent claims 1, 17 and 31 and are therefore rejected at least based on the rationale of the rejections above.

Conclusion

- I. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Stegelmann (USPAT. 7,051,051 B1)).
- II. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cesar B. Paula whose telephone number is (571) 272-4128. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m. (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong, can be reached on (571) 272-4124. However, in such a case, please allow at least one business day.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to <http://portal.uspto.gov/external/portal/pair>. Should you have any questions about access to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866 217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, please call 800-786-9199 or 571 272-1000 (USA or Canada).

Any response to this Action should be mailed to:
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Art Unit: 2178

Or faxed to:

- **(571)-273-8300** (for all Formal communications intended for entry)

	/CESAR B PAULA/ Primary Examiner, Art Unit 2178
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11/9/2010